

In re Application of: Debyser et al
Serial No. 09/403,625

REMARKS

Reconsideration is requested.

Claims 48-57 and 65-68 are pending. Claims 58-64 have been canceled, without prejudice. Entry of the above in addition to the Amendment of June 26, 2003, is requested.

The Examiner interview of August 7, 2003, is acknowledged, with appreciation. the Interview Summary accurately reflects the issues discussed.

Support for the new claims and amended claims may be found throughout the specification. No new matter has been added. Specifically, claims 65 is similar to claim 49 prior to the Amendment of June 26, 2003 with the additional requirement of a the protein or glycoprotein being a wheat protein or glycoprotein. The subject matter of claims 65 and 68, for example, are exemplified in the specification beginning, for example, at page 18 of the specification. Claims 66 and 67 are similar to claim 55 prior to the Amendment of June 26, 2003.

Beyond the remarks of the Amendment of June 26, 2003, the applicants request consideration of the following in view of the above and the Examiner Interview.

Specifically, the Examiner asserted during the interview that the Examiner believed SEQ ID NO:2 was a required element of the disclosed invention and should be recited in claims 48 and 49, as presented in the Amendment of June 26, 2003. The applicants have considered the Examiner's comments and continue to believe that the pending claims, as amended above, are patentable.

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As explained during the interview, the applicants have discovered that a protein or glycoprotein exists which may be described by the following chemical and physical characteristics: (1) the claimed product is a protein or glycoprotein; (2) the claimed product is an inhibitor of xylanase; (3) the claimed product is water-soluble; (4) the claimed product is alkaline; (5) the claimed product comprises an N-terminal amino acid sequence which is at least 70% homologous to SEQ ID NO:1; (6) the claimed product has a pI of greater than about 7.0; (7) the claimed product, as exemplified by the wheat extract, has a molecular weight of about 40-43 kDa as measured by SDS-PAGE; and (8) the claimed product, as exemplified by the wheat extract, resolves as two separate bands on SDS-PAGE after reduction with β -mercaptoethanol. These eight characteristics are recited in claim 48 and are sufficient, with the specification and the generally advanced level of skill in the art, to allow one of ordinary skill in the art to make and use the claimed invention, distinguish other products from the claimed product and appreciate that the applicants were in possession of the claimed product at the time the application was filed.

The remaining pending claims include or require additional features of the disclosed invention. New claim 65 for example, requires that the claimed product be a wheat protein or glycoprotein, as exemplified in the specification.

Recitation of SEQ ID NO:2 in claim 48, or any of the claims, should not be required, as asserted by the Examiner during the interview. As explained to the Examiner during the interview, and confirmed in a telephone message of August 26, 2003, the subsequently partially sequenced barley product, which is further disclosed in the applicants' later filed application (Serial No. 10/311,886 - which was published as

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WO 01/98474) does not contain SEQ ID NO:2 of the present application.¹ The barley sequence of the subsequent application is an exemplification of the presently claimed and described invention. SEQ ID NO:2 is not believed to be a conserved sequence among the inhibitors of the claimed invention. More importantly, SEQ ID NO:2 is not a required element to characterize or describe the present invention. Rather, the feature of the claimed invention that relates to the product resolving as two separate bands on SDS-PAGE after reduction with β -mercaptoethanol, such as when the product is a wheat inhibitor, is sufficient, with the other recited features of the claims, to describe the invention enabled by the specification.

Entry and consideration of the above in addition to the amendments and remarks of the Amendment dated June 26, 2003, are requested.

The claims are submitted to be in condition or allowance and a Notice to that effect is requested.

The Examiner is requested to contact the undersigned in the event anything further is required in this regard.

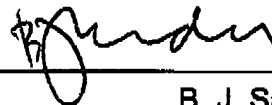
¹ The N-terminal sequence of the barley product described in footnote 2 of the Amendment of June 26, 2003 was in error in that Sequence 1 of the footnote should have been KALPVLAPVTKDAATSLYTI, as described on page 9, lines 23-25 of WO 01/98474 (SEQ ID NO:3). The inadvertent typographical error does not alter the conclusion expressed in footnote 2 of the Amendment of June 26, 2003.

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Respectfully submitted,

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